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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Chikara MURAKATA et al. **Confirmation No.: 6680**  
Serial No : 10/575,093 Group Art Unit: 1614  
(National Stage of PCT/JP2004/015293)  
I.A. Filed : October 8, 2004 Examiner: not yet assigned  
For : THIADIAZOLINE DERIVATIVES

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner of Patents  
U.S. Patent and Trademark Office  
Customer Service Window, Mail Stop Amendment  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

Further to the Information Disclosure Statement filed December 15, 2006, and in accordance with the duty of disclosure under 37 C.F.R. § 1.56 and 37 C.F.R. §§ 1.97-1.98, Applicants bring the following documents to the attention of the Examiner, which were cited in the International Search Report and in the International Preliminary Report on Patentability with respect to International Application No. PCT/JP2004/015293, of which the above-referenced application is a national stage:

- (1) B. G. Szczepankiewicz et al., J. Med. Chem., 2001, Vol. 44, No.25, pp. 4416-4430;
- (2) S. M. Hassan et al., J. Chem. Research, Synopses, 2000, Vol. 12, pp. 544-545 and pp. 1301-1315;
- (3) K. N. Zelenin et al., Zhurnal Organicheskoi Khimii, 1984, Vol. 20, No.1, pp. 152-162 .

Furthermore, Applicants direct the Examiner's attention to the following documents cited and discussed in the present application:

- (4) A. Blangy et al., Cell, 1995, Vol. 83, pp. 1159-1169 ; this document is cited and discussed in the present application, beginning at page 2, line 16;
- (5) T. M. Kapoor et al., The Journal of Cell Biology, 2000, Vol. 150, pp. 975-988; this document is cited and discussed in the present application, beginning at page 2, line 16;
- (6) T. M. Kapoor et al., Proc. Natl. Acad. Sci. USA, 1999, Vol. 96, pp. 9106-9111; this document is cited and discussed in the present application, beginning at page 2, line 27;
- (7) A. Lockhart et al., Biochemistry, 1996, Vol. 35, pp. 2365-2373; this document is cited and discussed in the present application, beginning at page 2, line 27;
- (8) J. Turner et al., J. Biological Chemistry, 2001, Vol. 276, No. 27, pp. 25496-25502; this document is cited and discussed in the present application, beginning at page 2, line 24;
- (9) Z. Maliga et al., Chemistry & Biology, 2002, Vol. 9, pp. 989-996; this document is cited and discussed in the present application, beginning at page 2, line 24;
- (10) A. I. Su et al., Proc. Natl. Acad. Sci. USA, 2002, Vol. 99, No. 7, pp. 4465-4470; this document is cited and discussed in the present application, beginning at page 2, line 32;
- (11) E. Mandelkow et al., Trends in Cell Biology, 2002, Vol. 12, No. 12, pp. 585-591; this document is cited and discussed in the present application, beginning at page 3, line 6;

- (12) T. U. Mayer et al., Science, 1999, Vol. 286, pp. 971-974 ; this document is cited and discussed in the present application, beginning at page 3, line 8;
- (13) T. Hoque et al., Journal of the Bangladesh Society, 1992, Vol. 5, No. 2, pp. 127-132; this document is cited and discussed in the present application, beginning at page 3, line 17;
- (14) K. N. Zelenin et al., Chemistry of Heterocyclic Compounds, 1999, Vol. 35, No. 1, pp. 87-92; this document is cited and discussed in the present application, beginning at page 3, line 23;
- (15) WO 02/057244 A1, July 25, 2002; this document is cited and discussed in the present application, beginning at page 3, line 6; and
- (16) WO 93/22311 A1, November 11, 1993; this document is cited and discussed in the present application, beginning at page 3, line 16.

Applicants further direct the Examiner's attention to the following copending and commonly assigned U.S. applications:

- (17) U.S. Application No. 10/497,531 to MURAKATA et al., filed March 28, 2005 and entitled "THIADIAZOLINE DERIVATIVE", which was published as U.S. 2006/0074113, and which is a U.S. National Stage Application of PCT/JP02/12961; and
- (18) U.S. Application No. 10/552,222 to MURAKATA et al., filed October 17, 2005 and entitled "M-STAGE KINESIN INHIBITOR", which is a U.S. National Stage Application of PCT/JP2004/005489.

Applicants further bring to the Examiner's attention the following documents cited in the International Search Reports for International Applications PCT/JP02/12961 (upon which U.S. 10/497,581 is based), PCT/JP2004/005489 (upon which U.S. 10/553,222 is based), and PCT/JP2004/008375 (upon which U.S. 10/560,230 is based):

- (19) M.A. Khalil et al., Arch. Pharm. (Weinheim), Vol. 326, 1993, pp. 489-492;
- (20) A.A. Farghaly et al., Arch. Pharm. Pharm. Med. Chem., Vol. 333, No. 2-3, 2000, pp. 53-57;
- (21) El-S.M. El-Khawass et al., Alexandria Journal of Pharmaceutical Sciences, Vol. 4, No. 1, 1990, pp. 77-79;
- (22) H.M. Mokhtar et al., Bull. Pharm. Sci., Assiut University, Vol. 18, Part 2, December 1995, pp. 59-67;
- (23) Chemical Abstracts, Vol. 114, 1989, abstract No. 62034, which is the Abstract of M.A. Khalil, Alexandria J. of Pharm. Sciences, Vol. 3, No. 2, 1989, pp. 221-224;
- (24) Chemical Abstracts, Vol. 114, 1989, abstract No. 42661, which is the Abstract of L.L. Awad et al., Alexandria J. of Pharm. Sci., Vol. 3, No. 2, 1989, pp. 119-121;
- (25) S.Y. Hassan et al., J. Saudi Chem. Soc., Vol. 3, No. 2, 1999, pp. 171-176;
- (26) T.-B. Huang et al., Phosphorus, Sulfur and Silicone, Vol. 122, 1997, pp. 307-312;
- (27) B. Schulze et al., Zeitschrift fuer Chemie, Vol. 29, No. 5, 1989, pp. 166-167;
- (28) JP 2000-204077A, July 25, 2000, accompanied by an English language abstract provided by esp@cenet;

- (29) U.S. Patent No. 6,545,030 (Barrett et al.), April 8, 2003; Applicants note that this document is a family member of document (28);
- (30) S. Schenone et al., Bioorganic and Medicinal Chemistry, 2001, Vol. 9, pp. 2149-2153;
- (31) M. Bhalla et al., European Journal of Medicinal Chemistry, 1994, Vol. 29, pp. 713-717;
- (32) S. Kubota et al., Heterocycles, 1986, Vol. 24, No. 1, pp. 21-24;
- (33) S. Kubota et al., J. Org. Chem., 1980, Vol. 45, No. 8, pp. 1473-1477;  
Applicants note that this document is cited and discussed at page 25, line 31 and at page 26, line 17 of the present application; and
- (34) S. Kubota et al., J. Chem. Soc., Chem. Comm., 1982, No. 16, pp. 901-902.

Applicants note that the documents cited in the International Search Reports for International Applications PCT/JP02/12961, PCT/JP2004/005489, and PCT/JP2004/008375 that are not listed herein were brought to the Examiner's attention in a previous Information Disclosure Statement.


Copies of the above-listed documents (with exception of the U.S. patent and U.S. patent application), the International Search Reports (in English) for International Applications PCT/JP02/12961, PCT/JP2004/005489, and PCT/JP2004/008375, and the International Preliminary Report on Patentability with respect to PCT/JP2004/015293 are enclosed together with a completed copy of the PTO-1449 Form listing the above-noted documents. The Examiner is requested to consider these documents and to indicate such consideration by returning a signed and initialed copy of the PTO-1449 Form with the next official communication.

Further to 37 C.F.R. §1.98 (a)(2)(ii) and to the U.S. Patent and Trademark Office's decision to waive the requirement under 37 C.F.R. §1.98 (a)(2)(iii) if a U.S. patent application was filed after June 30, 2003, copies of the U.S. patent and patent application are not enclosed herewith. However, copies are needed, the Examiner is respectfully requested to contact the undersigned.

Applicants note that an Office Action on the merits has not yet issued in the instant application, and thus, no fee is necessary to ensure consideration of this statement. However, if an Office Action has issued and is crossing in the mail with this statement, the Patent and Trademark Office is hereby authorized to charge Deposit Account No. 19-0089 any fee necessary to ensure consideration of the submitted materials.

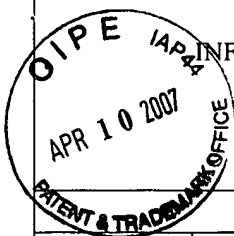
If there are any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,  
Chikara MURAKATA et al

  
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FORM PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
P29760Application No.  
10/575,093INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(Use several sheets if necessary)

Applicant  
Chikara MURAKATA et al.I.A. Filing Date  
October 8, 2004Group  
1614

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2006/	0 0 7 4 1 1 3	04/06/06	MURAKATA et al.			
		6 5 4 5 0 3 0	04/08/03	BARRETT et al..			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	02	/ 0 5 7 2 4 4	07/25/02	W.I.P.O.			
	9	3 / 2 2 3 1 1	11/11/93	W.I.P.O.			
	2000	- 2 0 4 0 7 7	07/25/00	JAPAN			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	1	B. G. Szczepankiewicz et al., J. Med. Chem., 2001, Vol. 44, No.25, pp. 4416-4430.
	2	S. M. Hassan et al., J. Chem. Research, Synopses, 2000, Vol. 12, pp. 544-545 and pp. 1301-1315.
	3	K. N. Zelenin et al., Zhurnal Organicheskoi Khimii, 1984, Vol. 20, No.1, pp. 152-162 .
	4	A. Blangy et al., Cell, 1995, Vol. 83, pp. 1159-1169 .
	5	T. M. Kapoor et al., The Journal of Cell Biology, 2000, Vol. 150, pp. 975-988.
	6	T. M. Kapoor et al., Proc. Natl. Acad. Sci. USA, 1999, Vol. 96, pp. 9106-9111.
	7	A. Lockhart et al., Biochemistry, 1996, Vol. 35, pp. 2365-2373.
	8	J. Turner et al., J. Biological Chemistry, 2001, Vol. 276, No. 27, pp. 25496-25502.
	9	Z. Maliga et al., Chemistry & Biology, 2002, Vol. 9, pp. 989-996.
	10	A. I. Su et al., Proc. Natl. Acad. Sci. USA, 2002, Vol. 99, No. 7, pp. 4465-4470.
	11	E. Mandelkow et al., Trends in Cell Biology, 2002, Vol. 12, No. 12, pp. 585-591.
	12	T. U. Mayer et al., Science, 1999, Vol. 286, pp. 971-974.
	13	T. Hoque et al., Journal of the Bangladesh Society, 1992, Vol. 5, No. 2, pp. 127-132.
	14	K. N. Zelenin et al., Chemistry of Heterocyclic Compounds, 1999, Vol. 35, No. 1, pp. 87-92.
	15	U.S. Application No. 10/552,222 to MURAKATA et al., filed October 17, 2005.
	16	M.A. Khalil et al., Arch. Pharm. (Weinheim), Vol. 326, 1993, pp. 489-492.
	17	A.A. Farghaly et al., Arch. Pharm. Pharm. Med. Chem., Vol. 333, No. 2-3, 2000, pp. 53-57.
	18	El-S.M. El-Khawass et al., Alexandria Journal of Pharmaceutical Sciences, Vol. 4, No. 1, 1990, pp. 77-79.
	19	H.M. Mokhtar et al., Bull. Pharm. Sci., Assiut University, Vol. 18, Part 2, December 1995, pp. 59-67.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. P29760	Application No. 10/575,093
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use several sheets if necessary)		Applicant Chikara MURAKATA et al.	
		I.A. Filing Date October 8, 2004	Group 1614

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

20	Chemical Abstracts, Vol. 114, 1989, abstract No. 62034, which is the Abstract of M.A. Khalil, Alexandria J. of Pharm. Sciences, Vol. 3, No. 2, 1989, pp. 221-224.
21	Chemical Abstracts, Vol. 114, 1989, abstract No. 42661, which is the Abstract of L.L. Awad et al., Alexandria J. of Pharm. Sci., Vol. 3, No. 2, 1989, pp. 119-121.
22	S.Y. Hassan et al., J. Saudi Chem. Soc., Vol. 3, No. 2, 1999, pp. 171-176.
23	T.-B. Huang et al., Phosphorus, Sulfur and Silicone, Vol. 122, 1997, pp. 307-312.
24	B. Schulze et al., Zeitschrift fuer Chemie, Vol. 29, No. 5, 1989, pp. 166-167.
25	English Language Abstract of JP 2000-204077.
26	S. Schenone et al., Bioorganic and Medicinal Chemistry, 2001, Vol. 9, pp. 2149-2153.
27	M. Bhalla et al., European Journal of Medicinal Chemistry, 1994, Vol. 29, pp. 713-717.
28	S. Kubota et al., Heterocycles, 1986, Vol. 24, No. 1, pp. 21-24.
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